

ABSTRACT

According to the present invention, there is provided a light scattering type particle detector in which light having a low energy intensity emitted from a light source
5 is converted into light having a high energy intensity so as to detect fine particles. In the light scattering type particle detector, particles contained in fluid are irradiated with light Lb, and scattered light Ls generated by the particles is received so as to detect the presence of the particles. The light Lb is obtained by converting light La having a wavelength of λ emitted from a light-emitting diode into light having a wavelength of
10 $\lambda/2$ after being transmitted through a nonlinear optical crystal. The light Lb having a wavelength of $\lambda/2$ is allowed to reciprocate between a reflecting film of the nonlinear optical crystal and a reflecting mirror.